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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,249	08/26/2003	Katsuya Kawagoe	241938US3	3049

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EXAMINER

GRAINGER, QUANA MASHELL

ART UNIT	PAPER NUMBER
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2852

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/647,249

Applicant(s)

KAWAGOE, KATSUYA

Examiner

Quana M. Grainger

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10,12-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,6,8,10,14 and 16 is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7,9,12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1 and 4-5 are objected to because of the following informalities. Claim 1 recites "modulus of the of the belt". Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4-5, 7, 9, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwama et al. in view of Kawaguchi et al.

Iwana et al. teaches a belt having a resin strip formed as a scale with reflect/non-reflecting portions that are used to detect the movement of the belt. Iwana et al. does not teach the elasticity for the belt or scale.

Kawaguchi et al. teaches a resin strip 3 for reinforcing a belt 10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Kawaguchi et al. with the belt of Iwana et al. to obtain a belt with less cracks and ruptures.

Iwama et al. in view of Kawaguchi et al. do not suggest that the scale has a plural magnetic and non-magnetic portions. The examiner takes official notice that it is known in the art to use a scale having magnetic and non-magnetic portions as a part of a speed detecting system for a belt. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to use a magnetic scale with the teaching of Iwama et al. since a magnetic scale to detect the speed of the rotating belt. Iwama et al. does not teach the Young's modulus of the belt. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the appropriate Young's modulus for the belt since where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

***Allowable Subject Matter***

4. Claims 2, 6, 8, 10, 14, and 16 are allowed.

***Prior Art***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boothe et al. and (Adachi, Kiuchi et al., Bando et al. (which teach the Young's modulus for intermediate transfer belts)) teach pertinent prior art.

***Response to Arguments***

6. Applicant's arguments filed 9-15-2006 have been fully considered but they are not persuasive. Applicant argued that Iwama in view of Kawaguchi et al. does not suggest the Young's modulus in the range of 3000 to 7000 Pascal. However, Morikoshi et al. teaches the importance of selecting the range for the Young's modulus for the intermediate transfer member.

Applicant argues that claim 9 has not been addressed. However, the drawing figures 2, 5, 6, show how the scale is read. Applicant also argues with respect to the magnetic scale. Both the teaching of a magnetic scale is old in speed control for a rotating belt and controlling timing

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or speed of a belt based on the results of reading a scale on a belt with a reading device. Just in case a teaching has not been cited for this teaching, Boothe et al. teaches al. is cited above.

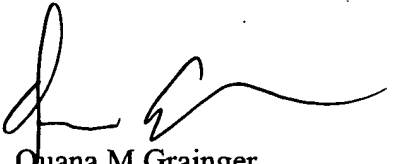
Finally, please review the claim 1 with respect to the scale being used to detect and the recitation of movement without the recitation of means to move the belt. The claims remain rejected as discussed above.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quana M. Grainger whose telephone number is 571-272-2135. The examiner can normally be reached on 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Quana M Grainger  
Primary Examiner  
Art Unit 2852

QG